

REMARKS

These Amendment and Remarks are being filed in response to the Office Action dated June 23, 2009. For the following reasons this application should be allowed and the case passed to issue. No new matter is introduced by this Amendment. The amendment to claim 1 is supported by the specification at page 6, lines 14-15 and the Table on page 10.

Claims 1 and 2 are pending in this application. Claims 1 and 2 were rejected. Claim 3 was previously canceled.

Claim Rejections Under 35 U.S.C. § 103

Claims 1 and 2 were rejected under 35 U.S.C. § 103 for obviousness based upon EP 0 393 723 (EP '723), in view of alleged acknowledged prior art, JP 11-137336 (JP '336), Fujii et al. (U.S. Pat. No. 5,041,252), JP 63188628 (JP '628) or JP 63027411 (JP '411). This rejection is traversed, and reconsideration and withdrawal thereof respectfully requested. The following is comparison between the present invention as claimed and the cited prior art.

The Office Action asserted that EP'723 discloses papers and nonwoven fabrics carrying or incorporating calcium phosphate compounds having a particle size of 0.1 to 30 μm as fillers in an amount of 10 to 80 % by weight. The Office Action further asserted that EP '723 discloses hydroxyapatite, a paper basis weight of 20 g/m^2 or more, and talc. The paper can be used to absorb oil-soluble substances and can be used in diapers, sanitary napkins, and pads for bedsores. The Office Action averred that Fujii et al. disclose nonwoven fabric with apatite additive and a basis weight of preferably 10 to 300 g/m^2 for use in a baby's napkin, sanitary napkins, and toilet paper. The Office Action maintained that JP '336 discloses a paper used to absorb sebum from the skin containing talc having an average particle size of 1.2 microns. The Office Action asserted that JP '628 or JP '411 disclose that hydroxyapatite is used in cosmetic products to

absorb oxidized lipids to treat acne. The Office Action concluded that the prior art suggests the claimed sebum absorbing paper because it is known to use papers containing hydroxyapatite and talc as absorbants, papers containing talc are known to be used for absorbing oil from skin and that hydroxyapatite is used in cosmetic products to absorb oxidized lipids. Therefore, one of ordinary skill in the art would have been motivated to modify the prior art with the expectation that a paper containing hydroxyapatite and talc would be suitable for absorbing oxidized sebum from the skin because hydroxyapatite powders are known to be effective in absorbing oxidized lipids from the skin.

Contrary to the Office Action, the sebum absorbing paper of the present invention is not obvious in view of EP 0 393 723 (EP '723), alleged acknowledged prior art, JP 11-137336 (JP '336), Fujii et al. (U.S. Pat. No. 5,041,252), JP 63188628 (JP '628) or JP 63027411 (JP '411). The primary reference, EP '723, is not directed to a paper used for applying to skin or for cleaning the skin and does not suggest a punch force of 5.0 or more, as recited in claim 1. Instead, as described in fields of application (a)-(g) on pages 9-10 of EP '723, the disclosed paper with hydroxyapatite is used for (a) deodorants, (b) filter mediums, (c) adsorbents, (d) substitute materials for biomaterials, (e) food wrapping papers, (f) articles in a bioindustry, and (g) articles in a medical treatment.

When a sebum absorbing paper for applying to skin or for cleaning the skin is used a user can visually recognize an extent to which sebum is removed by the increased transparency of the paper. The punch force is an indicative value for estimating the increase of the transparency and a punch force of 5.0 or greater indicates sufficient increase in the transparency. Therefore, the user would visually recognize the effect of lipid absorbency when the punch force is 5.0 or greater.

Thus, punch force is a useful and reliable indicator for determining the product value of the sebum absorbing paper. (See specification at page 6, lines 6 to 17).

JP '336 was cited to teach a paper containing talc used to remove oil from the skin. However, JP '336 is completely silent with regard to the use of hydroxyapatite, and does not suggest a punch force of 5.0 or more.

Fujii et al. is relied on as teaching that nonwoven fabric in the form of baby's napkin, women's sanitary napkin, and toilet paper in which apatite is added to improve properties. Fujii et al., however, disclose implant materials having a good compatibility with a living organism. The reference to Fujii et al. is **remote** to sebum absorbing paper, and Fujii et al. do not suggest the required punch force of 5.0 or more.

JP '628 or JP '411, were relied upon to teach that hydroxyapatite is used in a cosmetic product to absorb oxidized lipids. JP '411, entitled "Dust Preparation for Skin External Use," discloses a powdery preparation that is applied to the skin to "prevent or improve skin roughness." It is noted that JP '411 discloses a product that is not part of a paper. JP '411 does not suggest the required punch force of 5.0 or more.

JP '628 is also not related to a paper product. Instead, JP '628, entitled "Drug for Skin External Use," is directed to a blend of a hydroxyapatite powder with antiphlogistics and/or keratin release agents. As described in the abstract, the product can be in the form of a shape of cream, ointment, lotion, tonic, powder. JP '628 does not suggest the required punch force of 5.0 or more.

In summary, the applied references describe a non-skin related paper (i.e., EP '723), a paper to be used for cleaning the skin (JP '336), implant materials having a good compatibility with a living organism (Fujii et al.), and a pair of non-paper related products (i.e., JP '628 and JP '411). In

addition, none of the references suggest the required sebum absorbing paper having a punch force of 5.0 or more, as explained above.

With regard to the Office Action's prima facie obviousness assertion, it is submitted that the mere identification of various claim features in disparate references is insufficient to establish the requisite realistic motivation to support the ultimate legal conclusion of obviousness under 35 U.S.C. § 103. *Grain Processing Corp. v. American-Maize Products Co.*, 840 F.2d 902, 5 USPQ2d 1788 (Fed. Cir. 1988).

The Examiner's stated motivation to combine the cited references is that "one of ordinary skill in the art would have been motivated to modify the prior art as above with the expectation that a paper containing hydroxyapatite and talc would be suitable for absorbing oxidized sebum from the skin." This statement merely describes an expected end result taught by the present disclosure without explaining why this result would have been expected (i.e., the rationale that would have led one skilled in the art to this result).

EP '723 is not directed to a paper used for applying to skin or for cleaning the skin. Despite the discussion of many different uses for the disclosed paper, including use as a filter medium and a food wrapping paper, EP '723 is completely silent about using the disclosed paper for applying to the skin or for cleaning the skin. Although EP '723 discloses that the "functional paper shows preferably a basis weight of 20g/m² or more," which falls within the claimed 5 to 25 g/m², the specific examples disclosed by EP '723 are all 48 g/m² or greater.¹ This weight of paper in the examples found in EP '723, although presumably appropriate for the heavier duty applications discussed in EP '723, would not have been recognized as appropriate for use on the skin for absorbing sebum, since sebum absorbing papers conventionally are thin and soft.

¹ 85 g/m² in Example 4; 99 g/m² in Example 6; 93 g/m² in Example 9, 101 g/m² in Example 10; 103 g/m² in Example 11; 105 g/m² in Example 12, 98 g/m² in Example 13; and 48 g/m² in Example 14.

Based upon the absence of a teaching in EP '723 that the disclosed paper can be used for skin cleansing and the paper basis weights disclosed in the examples of EP '723, which are too heavy to be previously considered as sebum absorbing papers, one skilled in the art would not have recognized EP '723 as being directed to a paper used for applying to the skin or for cleaning the skin, as recited in claim 1. Thus, one skilled in the art of skin cleansing with paper would not look to a reference (i.e., EP '723) that teaches a product that is related neither to skin cleansing nor sebum removal.

References JP '628 and JP '411, cited to teach that hydroxyapatite absorbs oxidized lipids, are completely silent about using hydroxyapatite as a filler in a sebum absorbing paper. Instead, both of these references disclose hydroxyapatite in the form of a powder that is directly applied to the skin or is applied via another delivery system, such with a cream, ointment, or lotion. These references, although disclosing many different systems in which the hydroxyapatite can be delivered to the skin, are conspicuously silent with regard to the use of hydroxyapatite as a filler for a sebum absorbing paper. The Examiner, however, has failed to explain why one having ordinary skill in the art would believe, with a reasonable expectation of success, that a product taught as being directly applied to the skin or used in other deliver systems *with the notable exception of paper*, could be applied to the skin with paper.

The present invention provides the following advantages:

- (1) High absorption ability of oxidized sebum (by hydroxyapatite) (specification page 2, lines 18-21),
- (2) High smoothness and thereby improved wiping (by talc) (specification page 2, line 24 to page 3, line 10), and

(3) High punch force (by talc) (specification page 6, line 9 to page 8, line 6; and Table, page 10).

EP '723 discloses deodorant paper containing apatite, which can also contain talc if necessary. But there is no suggestion of the advantages (2), (3), and it is clear that improved wiping and high punch force are not needed in the diapers, sanitary napkins, and pads for bedsores disclosed by EP '723.

To make up for these deficiencies in EP '723, the Examiner then relies on no less than five other references (four published prior art and one alleged admitted prior art), none of which fully make up for the deficiencies of EP '723. The Examiner's back-fitting of the deficient claim limitations by selecting, adding, subtraction and mixing of claim elements from six prior art references and alleged admitted prior art can only be attributed to the Examiner's impermissible hindsight use of independent claim 1 as a road map.

JP '336 discloses sebum absorbing paper containing talc, but it is clear that high punch force is not needed in or suggested by JP '336. Further, hydroxyapatite is not suggested at all in JP '336. Hydroxyapatite has higher absorption ability of oxidized sebum than talc. Thus, the sebum absorbing paper in accordance with JP '336 is inferior to the present invention.

Fujii et al. do not suggest the use of talc.

JP '411 and JP '628 disclose medicaments each containing apatite and talc. However, the medicaments are neither paper nor sheets, thus it is not possible for the talc contained in the medicaments to suggest improved wiping and high punch force provided by the present invention.

This is clear error as the examiner has failed in his attempt to make a *prima facie* case of obviousness as no "apparent reason"² is provided why one of skill in the art would select, add,

² The Supreme Court's *KSR* decision requires an "apparent reason" why one of skill in the art would render the invention obvious. 127 S. Ct. 1727, 1741 (2007).

subtract or mix the claim limitations from six prior art references. There is no “apparent reason” in the six references to combine the references in the manner that the Examiner alleged to disclose or teach claim 1. One of skill in the art would find multiple and impassible detours to achieve the present invention if one only followed the teachings in the six references.

Applicants further point out that the present invention has been approved as patents in Europe, China and Korea, as follows:

Europe: EP1306030,

China: ZL01802275.8, and

Korea: 814997.

Thus, as the present claims are distinguishable over the cited references, Applicants submit that the present rejections should be withdrawn and the present claims should likewise be allowed.

Obviousness can be established by combining or modifying the teachings of the prior art to produce the claimed invention where there is some teaching, suggestion, or motivation to do so found either explicitly or implicitly in the references themselves or in the knowledge readily available to one of ordinary skill in the art. *In re Kahn*, 441 F.3d 977, 986, 78 USPQ2d 1329, 1335 (Fed. Cir. 2006); *In re Kotzab*, 217 F.3d 1365, 1370 55 USPQ2d 1313, 1317 (Fed. Cir. 2000); *In re Fine*, 837 F.2d 1071, 5 USPQ2d 1596 (Fed. Cir. 1988); *In re Jones*, 958 F.2d 347, 21 USPQ2d 1941 (Fed. Cir. 1992). There is no suggestion in EP '723, alleged acknowledged prior art, JP '336, Fujii et al., JP '628 or JP '411 to modify EP '723 to obtain the sebum absorbing paper, as required by claim 1, nor does common sense dictate the Examiner-asserted modification. *See KSR Int'l Co. v. Teleflex, Inc.*, 500 U.S. ____ (No. 04-1350, April 30, 2007) at 20.

In order to establish realistic motivation, the Examiner must make clear and particular **factual findings** as to a **specific understanding or specific technological principle** and then, based upon such **facts**, explain **why** one having ordinary skill in the art would have been realistically motivated to modify a **specific prior art**, in this case presumably the papers and nonwoven fabrics of EP '723, to arrive at the claimed invention. *In re Lee*, 237 F.3d 1338, 61 USPQ2d 1430 (Fed. Cir. 2002); *Ecolochem Inc. v. Southern California Edison, Co.* 227 F.3d 1361, 56 USPQ2d 1065 (Fed. Cir. 2000); *In re Kotzab*, 217 F.3d 1365, 55 USPQ 1313 (Fed. Cir. 2000); *In re Dembiczak*, 175 F.3d 994, 50 USPQ2d 1614 (Fed. Cir. 1999); *In re Rouffet*, 149 F.3d 1350, 47 USPQ2d 1453 (Fed. Cir. 1998). This burden has **not** been discharged. As pointed out above, the Examiner has identified features in the applied references and then announced the obviousness conclusion without complying with judicial requirements requiring clear and particular factual findings and reasons based upon such findings. Instead what the Examiner has done is pointed to isolated features and then announced the obviousness conclusion. This approach is **legally erroneous**. *In re Dembiczak, supra*; *Grain Processing Corp. v. American-Maize Products Co.*, 840 F.2d 902, 5 USPQ2d 1788 (Fed. Cir. 1988).

The Office Action assumes that the claimed invention would have been obvious because the Examiner has identified perceived features of the claimed invention in these disparate references. There is no automatic motivation, particularly in the present situation where the references are conspicuously silent as to the problem addressed and solved by the claimed invention.

Based upon the foregoing it should be apparent that a prima facie basis to deny patentability to the claimed invention has not been established for lack of the requisite factual

basis and want of the requisite realistic motivation. Moreover, there is a potent indicium of non-obviousness which the Office Action failed to consider.

The Office Action has failed to establish a *prima facie* basis to deny patentability to the claimed invention under 35 U.S.C. § 103 for lack of the requisite factual basis and want of the requisite realistic motivation. Moreover, upon giving due consideration to the problem of selectively absorbing oxidized sebum from other types of sebum which is addressed and solved by the claimed invention, and the failure of the applied prior art to appreciate that problem, the conclusion appears inescapable that one having ordinary skill in the art would **not** have found the **claimed subject matter as a whole**, obvious within the meaning of 35 U.S.C. § 103. *Jones v. Hardy*, 727 F.2d 1524, 220 USPQ 1021 (Fed. Cir. 1984).

While the Office Action cited a number of passages from *KSR International Co. v. Teleflex Inc.*, 82 USPQ2d 1385, 1396, 1397 (U.S. 2007), there is no explanation of how these passages pertain to the present invention. It is not sufficient to merely cite *KSR* to establish obviousness. In fact, the Court was quite clear that, “rejections on obviousness grounds cannot be sustained by mere conclusory statements; instead there must be some articulated reasoning with some rational underpinning to support the legal conclusion of obviousness,” *KSR*, slip op. at 14 (citing *In re Kahn*, 441 F.3d 977, 988 (Fed. Cir. 2006)). Further, the Court recognized, “it can be important to identify a reason that would have prompted a person of ordinary skill in the relevant field to combine the elements in the way the claimed new invention does,” *KSR*, slip op. at 15. Furthermore, in *KSR* the prior art references were directed to automobile pedals. On the other hand, the references applied in the present Office Action are directed to different arts; non-skin related paper (i.e., EP '723), a paper to be used for cleaning the skin (JP '336), implant materials having a good compatibility with a living organism (Fujii et al.), and a pair of non-paper

related products (i.e., JP '628 and JP '411), as explained above. Thus, the facts in *KSR* are very different from the instant application.

The Examiner argued that the rulings in *KSR* were discussed in relation to the facts of the present application. However, the Examiner's arguments consist of mere conclusory statements without the articulated reasoning with some rational underpinning to support the legal conclusion of obviousness required by the Court in *KSR*. Though, *KSR* may have held that the teaching, suggestion, motivation (TSM) test was not required to prove obviousness, the Court did not abandon TSM, but rather indicated that TSM was an indicia of obviousness. Likewise, the lack of motivation, suggests that the combination is not obvious. When applying case law, the facts of the case and the instant situation must be considered. In *KSR* all the prior art was directed to automobile pedals, thus, all the references were analogous prior art. On the other hand, in the instant case the references combined by the Examiner are directed to non-analogous art. For example, EP '723 is directed to paper with hydroxyapatite used for (a) deodorants, (b) filter mediums, (c) adsorbents, (d) substitute materials for biomaterials, (e) food wrapping papers, (f) articles in a bioindustry, and (g) articles in a medical treatment. Fujii et al. is directed to implant materials having a good compatibility with living organisms. JP '336 is directed to a paper used to absorb oil from the skin. JP '411 discloses a powdery preparation that is applied to the skin to "prevent or improve skin roughness." It is noted that JP '411 discloses a product that is not part of a paper. JP '628 is also not related to a paper product. Instead, JP '628 is directed to a cream, ointment, lotion, tonic, or powder. Unlike the facts in *KSR*, in which all the combined references were directed to analogous art, the present references are directed to very different, non-analogous arts. Thus, the specific principles espoused in *KSR* do not necessarily apply to the present fact pattern.

When the combination of references are considered as a whole it is clear that the present invention is not suggested. The only teaching of the claimed sebum absorbing paper is found in Applicants' disclosure. However, the teaching or suggestion to make a claimed combination and the reasonable expectation of success must not be based on applicant's disclosure. *In re Vaeck*, 947 F.2d 488, 20 USPQ2d 1438 (Fed. Cir. 1991). It is clear that the Examiner has relied on improper hindsight reconstruction of Applicants' invention in reaching the conclusion of obviousness.

Even if the Examiner has presented a prima facie case of obviousness, and Applicants do not concede that such a case has been made, Applicants' evidence of unexpected results would overcome such a prima facie case of obviousness. The present claims are further distinguishable over the cited references in view of the unexpected results, as shown in the Table on page 10 of the present specification. Sample sebum absorbing papers with the claimed basis weight, filler, proportion of hydroxyapatite and talc, and talc particle size have **superior punch force**, lipid absorption, durability, productivity, and suitability for absorbing sebum. The unexpected, superior results obtained by the present invention is clearly seen in Sample Nos. 1, 2, 3, 5, and 15, which meet all the limitations of claim 1, and the samples which do not meet all the claim limitations, Sample Nos. 4 and 6-14.

In view of the above amendment and remarks, Applicants submit that this application should be allowed and the case passed to issue. If there are any questions regarding this Amendment or the application in general, a telephone call to the undersigned would be appreciated to expedite the prosecution of the application.

To the extent necessary, a petition for an extension of time under 37 C.F.R. § 1.136 is hereby made. Please charge any shortage in fees due in connection with the filing of this paper, including extension of time fees, to Deposit Account 500417 and please credit any excess fees to such deposit account.

Respectfully submitted,

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